

or 9.1 is spring-loaded in the direction of the respective counter-roller such that it is always ensured that the rollers 8.1 and 9.1 bear reliably and firmly on the charging cable 2. Slippage between the charging cable 2 and the rollers 8.1 and 9.1 can be minimized as a result.

[0036] In the exemplary embodiment according to FIG. 1, the rollers 8.1 and 9.1 are designed as spring rollers, the springs of which are tensioned when the charging cable 2 is pulled out from the holding space 3 and are relaxed when the charging cable 2 is pushed in, consequently assisting the retraction of the charging cable into the holding space 3. The principle of spring rollers is known per se and does not need to be described in detail.

[0037] In the exemplary embodiment according to FIG. 4 to FIG. 6, at least one of the rollers 8.2 or 9.2 is driven by an electromotor in both directions of rotation. According to the view in FIG. 4 and FIG. 5, both rollers 8.2 and 9.2 are driven. Both rollers 8.2 and 9.2 are thus provided with cogwheels 12 and 13 which engage with each other and are arranged fixedly on their axes of rotation, the cogwheel 13 of which arranged on the right in the drawings is driven by the output pinion 14 of an electric motor 15. The output pinion 14 of the electric motor 15 thus meshes with an intermediate wheel 14.1 which in turn engages with the cogwheel 13. Alternatively, the output pinion 14 of the electric motor 15 could also engage directly with the cogwheel 13 of the roller 9.2 such that the intermediate wheel 14.1 could be dispensed with. Any other type of suitable drive can also be used instead of the electric motor 15.

[0038] In the exemplary embodiment illustrated in FIG. 4 to FIG. 6, the guide rollers or transport rollers 8.2 and 9.2 cannot be pretensioned toward each other, as is possible in the exemplary embodiment according to FIG. 1. However, in order to nevertheless enable good frictional contact with the charging cable 2, the rollers 8.2 and 9.2 are designed so that they are divided approximately centrally into two halves 16 and 18 and 17 and 19, perpendicular to their axes of rotation 10.2. The respective upper roller halves 16 and 18 are here elastically pretensioned toward the respective other roller half 17 and 19 by means of a spring mechanism 20. Therefore, when a relatively thick charging cable 2 is passed between the rollers 8.2 and 9.2, the upper roller halves 16 and 18 can rise a little relative to the lower roller halves 17 and 19 such that it is ensured there is good frictional contact at all times. The two roller halves 16 and 17 and 18 and 19 which respectively form a guide roller or transport roller are thus connected positively to each other in any relative position in the direction of rotation. The same applies for the two upper roller halves 16 and 18 with respect to the cogwheels 12 and 13 which are connected to each other and with the latter in the direction of rotation.

[0039] The rollers 8.2 and 9.2, together with the cogwheels 12 and 13, are installed between the lower plate 4 and an upper mounting plate or a support plate 32. In order to reduce the friction here, sliding plates 30 and 31 are provided on the upper side of the plate 4 and the underside of the mounting plate or the support plate 32.

[0040] The mounting plate or the support plate 32 is fixed to the lower plate 4 with the aid of screws 33 and pins 34 having an internal thread. For this purpose, the pins 34 provided with the internal thread are pushed from below through bores 35 provided in the plate 4, whilst the screws

33 are screwed from above through bores 36 provided in the mounting plate or the support plate 32 into the internal thread of the pins 34.

[0041] A further exemplary embodiment of the cable-holding device 1 is illustrated in FIG. 3. In this exemplary embodiment, the upper plate 5 serves as the cargo area of a trunk such that the holding space 3 for the charging cable 2 in this case lies immediately below the cargo area of the trunk.

[0042] In order to reach the plug 24 of the charging cable 2 comfortably, a flap 23 for leading out the charging cable 2 is arranged on that side of the upper plate 5 which faces the rear of the vehicle and can be pivoted upward or simply removed.

[0043] The plug 24 which is to be connected to the external power supply device and is arranged on the extractable connection end 2.1 of the charging cable 2 is here fastened detachably on the underside of the flap 23. When the flap 23 is pivoted upward, the plug 24 is therefore raised into a position in which it can be accessed comfortably for removal. The detachable fastening is effected by a tab 27 which is fixedly connected to the charging cable 2 and engages over a hook 26 provided on the underside of the flap 23. Alternatively, any other detachable fastenings can also be used.

[0044] When the flap 23 is opened, the initially horizontally extending charging cable 2 is raised into a perpendicular position. In order to facilitate this procedure, a rotatably mounted deflection roller 28 is arranged below the flap opening 25. This feature is illustrated in particular in FIG. 6.

[0045] In order to ensure in all three exemplary embodiments that the charging cable 2 is not pulled too far into the holding space 3, as illustrated in FIG. 3, a stopper 29 is provided shortly before the free connection end 2.1 of the charging cable 2.

[0046] A cable-holding device is provided by the disclosure which can be installed in almost all types of vehicle in a space-saving fashion, enables the electrical storage device to be charged quickly and cleanly, and ensures that the charging cable is stowed neatly.

LIST OF REFERENCE NUMERALS

[0047] The following reference numerals are utilized in this disclosure:

- [0048] 1 cable-holding device
- [0049] 2 charging cable
- [0050] 2.1 connection end of the charging cable
- [0051] 3 holding space
- [0052] 4 lower plate
- [0053] 5 upper plate
- [0054] 6 holding surface
- [0055] 7.1 side through opening
- [0056] 7.2 side through opening
- [0057] 8.1 guide roller or transport roller
- [0058] 8.2 guide roller or transport roller
- [0059] 9.1 guide roller or transport roller
- [0060] 9.2 guide roller or transport roller
- [0061] 10.1 axes of rotation
- [0062] 10.2 axes of rotation
- [0063] 11 bearing surface of the guide rollers
- [0064] 12 cogwheel
- [0065] 13 cogwheel
- [0066] 14 output pinion
- [0067] 14.1 intermediate wheel